

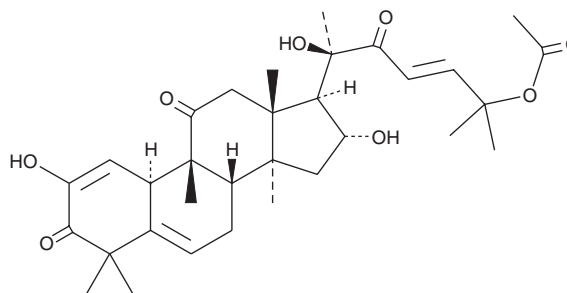
PRODUCT INFORMATION



Cucurbitacin E

Item No. 14821

CAS Registry No.: 18444-66-1
Formal Name: (9 β ,10 α ,16 α ,23E)-25-(acetyloxy)-2,16,20-trihydroxy-9-methyl-19-norlanosta-1,5,23-triene-3,11,22-trione
Synonyms: NSC 106399, NSC 521775
MF: C₃₂H₄₄O₈
FW: 556.7
Purity: \geq 98%
UV/Vis.: λ_{max} : 234 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Cucurbitacin E is supplied as a crystalline solid. A stock solution may be made by dissolving the cucurbitacin E in the solvent of choice, which should be purged with an inert gas. Cucurbitacin E is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of cucurbitacin E in these solvents is approximately 30 mg/ml.

Cucurbitacin E is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cucurbitacin E should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Cucurbitacin E has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Cucurbitacin E is a plant-derived triterpene that has diverse biological activities. At a concentration of 10 pM, it reduces MPP⁺-induced death of neuronal PC12 cells through inhibition of autophagy *in vitro*.¹ Cucurbitacin E inhibits growth of T24 bladder, MDA-MB-468 and MCF-7 breast, PC3 prostate, and colorectal cancer cell lines (IC₅₀s = 50-1,000 nM) through induction of G₂/M arrest and apoptosis.²⁻⁴ It increases bilirubin binding to human serum albumin (HSA) in human plasma in a dose-dependent manner.⁵ Cucurbitacin E also inhibits depolymerization of actin filaments isolated from rabbit skeletal muscle actin and in HeLa cells.⁶

References

1. Arel-Dubeau, A.-M., Longpré, F., Bournival, J., *et al.* *Oxid. Med. Cell. Longev.* 425496 (2014).
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3. Kong, Y., Chen, J., Zhou, Z., *et al.* *PLoS One* **9**(7), e103760 (2014).
4. Huang, W.-W., Yang, Y.-S., Lin, M.-W., *et al.* *Evid. Based Complement. Alternat. Med.* 952762 (2012).
5. Greige-Gerges, H., Abou Khalil, R., Chahine, R., *et al.* *Life Sci.* **80**(6), 579-585 (2007).
6. Sørensen, P.M., Iacob, R.E., Fritzsche, M., *et al.* *ACS Chem Biol.* **7**(9), 1502-1508 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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